Alzheimer's disease: The first prevention study of its kind

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Researchers at the Douglas Mental Health University Institute, in Montreal, Quebec, are about to launch the first epidemiological study on the prevention of Alzheimer's disease.

"As far as we know, this is the first study of its kind to be carried out anywhere in the world," states John Breitner, the study's lead investigator and Director of the new Centre for Studies on Prevention of Alzheimer's Disease (StoP-Alzheimer). Dr John Breitner and Dr Judes Poirier, the Centre's Associate Director, will be recruiting 250 healthy adults aged 60 or over, who have (or had) a parent, brother or sister with Alzheimer's disease, in order to learn which methods are most effective at preventing this neurodegenerative condition.

Using a combined diagnostic approach of brain imaging and cerebrospinal fluid analysis, the researchers will observe their subjects' biomarkers for a period of ten years to find out which preventative agents can stop the disease from developing, long before symptoms appear. The preventative agents involved—five in all—have already shown promising results in previous studies. They are anti-inflammatory medications, insulin, physical activity, the Mediterranean diet, and drugs stimulating the production of a protein connected to the apoE gene.

The future of Alzheimer's research

For more than a decade, research into the treatment of Alzheimer's

disease, whether pharmacological or other, has not produced the desired results. To date, only some symptoms relating to cognitive decline or memory loss can be treated. Observations by scientists suggest that the focus should shift to prevention and that money should be invested in major studies into this aspect of the disease. "Alzheimer's is a public health crisis that could take on catastrophic proportions in the coming years. It is imperative that we find the prevention strategies that are most likely to succeed," stresses Dr Poirier.

Centre for Studies on Prevention of Alzheimer's Disease

Supported financially by McGill University and the professorial chair funded by pharmaceutical giant Pfizer, the Centre for Studies on Prevention of Alzheimer's Disease, based at the Douglas Institute, is committed to finding ways to stop the disease's progress long before any symptoms are noticed. The Centre will be able to draw on the findings of more than twenty scientists already studying brain aging. This new study by Dr Breitner and Dr Poirier is the first in a series that will be developed at the Centre.

"What we will be doing is similar to the work done on preventing heart disease, that is, to intervene before the damage is done," explains Dr Poirier.

The impact of disease prevention

Preventing the disease from manifesting itself, even if only for a few years, would have a huge impact on future generations, on families, on society, and on the health care system as a whole.

• Postponing the disease's symptoms for two years represents 30% fewer

cases for the current generation.

• Push the symptoms back by five years, and the number of cases is cut by half within one generation. It's a crisis situation. Every year, the costs attributable to Alzheimer's disease are estimated to be between $6 billion and $8 billion in Canada alone.

• Half a million Canadians suffer from Alzheimer's or a related dementia—71,000 of those are under 75 years of age (Alzheimer's Society of Montreal).

• A person who has a parent with Alzheimer's is two to three times more likely to develop the disease.

Provided by Douglas Mental Health University Institute